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SUGHRUE, MION, ZINN, MACPEAK & SEAS
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EXAMINER

NGO, NGUYEN HOANG

ART UNIT PAPER NUMBER

2663

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,506

Applicant(s)

NITTA, YOSHIO

Examiner

Nguyen Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This communication is in response to the amendment of 08/05/2005. All changes made to the specification and claims have been entered. Accordingly claims 1-27 are currently pending in the application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14, 15, 17, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Martin (US 6154776), hereinafter referred to as Martin.

Regarding claim 14, and 15, Martin discloses a telecommunication network comprising;

a network access server (16 of figure 1) which provides access to the PSTN, for example the Internet from the server side (gateway which transfers IP datagrams, col5 lines 56-64) and that the network access server implements a QoS mechanism that sample packets relating to information flow and extract from the packet headers selected parameters representative of flow, and that such parameters are a service or a

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protocol used (detecting a protocol (flow parameter) used for transfer of at least one IP datagram which is received, col7 lines 46-55).

a controller (quality determining unit) which determine a key for a request for establishing a flow-entity binding and for accessing an entity entry containing a QoS identification, and that such key for request be based on flow parameters, including protocol of the packet (a quality determining unit which includes QoS data of a plurality of protocols (directory interface, 44 of figure 4), wherein the quality determination unit determines a QoS which corresponds to the detected protocol (QoS identification) on said QoS data, col9 lines 51-65).

Regarding claim 17, Martin discloses that the QoS defines buffer sizes used (col2 lines 17-20).

Regarding claim 20, Martin discloses that the IP datagram includes an IP address of a user (user (IP source or destination)) communicating said IP datagram and said quality determining unit (controller) determines said QoS based on said IP address (parameter keys, col9 lines 55-65).

Regarding claim 21, Martin discloses that the QoS defines firewall characteristics (col2 lines 17-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 2, 4, 5, 7, 8, 9, 12, 13, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 6154776), in view of Kung et al. (US 6775267), hereinafter referred to as Martin and Kung.

Regarding claim 1, 2, 23, 25, 26, and 27 Martin discloses a telecommunication network and method comprising;

a network access server (16 of figure 1) which provides access to the PSTN, for example the Internet from the server side (gateway which transfers IP datagrams, col5 lines 56-64) and that the network access server implements a QoS mechanism that sample packets relating to information flow and extract from the packet headers selected parameters representative of flow, and that such parameters are a service or a

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protocol used (detecting a protocol (flow parameter) used for transfer of at least one IP datagram which is received, col7 lines 46-55).

a controller (quality determining unit) which determine a key for a request for establishing a flow-entity binding and for accessing an entity entry containing a QoS identification, and that such key for request be based on flow parameters, including protocol of the packet (a quality determining unit which includes QoS data of a plurality of protocols (directory interface, 44 of figure 4), wherein the quality determination unit determines a QoS which corresponds to the detected protocol (QoS identification) on said QoS data, col9 lines 51-65).

that configuration rules define QoS policies and defines actions to be applied to a flow such as bandwidth to be allocated (wherein said gateway transfers the at least one IP datagram at the QoS which is determined (according to configuration of QoS policies), col8 lines 54-58).

Martin however fails to disclose the limitation of having a user fee-determining unit, which determines a user fee based on said QoS determined. Kung however discloses an accounting gateway, which generates paper billing to customers dependent on the quality of service used (user fee determining unit (accounting gateway) which determines a user fee (bill) based on said QoS, col16 lines 10-26). It is further noted that the correlation to billing and QoS used for a transmission is well known in the art, and thus it would have been obvious to a person skilled in the art to incorporate the accounting gateway as disclosed by Kung into the QoS method that

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allocates QoS to a flow on a network in response to detection of parameters of the flow as disclosed by Martin to efficiently charge clients for use of bandwidth in the transmission of data to return a profit.

Regarding claim 4, the combination of Martin and Kung discloses all the limitation of claim 4, more specifically Martin discloses that the QoS defines buffer sizes used (col2 lines 17-20).

Regarding claim 5, the combination of Martin and Kung discloses all the limitation of claim 5, more specifically; Martin discloses that the QoS defines firewall characteristics (col2 lines 17-20).

Regarding claim 7, the combination of Martin and Kung, more specifically Martin discloses having said gateway (network access server) include an API for accessing said quality determining unit in order to set said QoS (col7 lines 510). It is further disclosed from 46 of figure 4, of a Directory API.

Regarding claim 8, the combination of Martin and Kung, more specifically Martin discloses that the gateway detects a protocol used for the transfer of the IP datagram based on content of a header of the IP datagram (col7 lines 46-56).

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Regarding claim 9, the combination of Martin and Kung, more specifically Martin discloses that the QoS data is a table (cache of figure 4) indicative of a correspondence between said detected protocol (parameter key) and said QoS (QoS identification), and said quality determining unit (controller) determines said QoS based on said table (col10 lines 18-26).

Regarding claim 12, the combination of Martin and Kung, more specifically Martin discloses that the IP datagram includes an IP address of a user (user (IP source or destination)) communicating said IP datagram and said quality determining unit (controller) determines said QoS based on said IP address (parameter keys, col9 lines 55-65).

Regarding claim 13, the combination of Martin and Kung, more specifically Martin discloses that the QoS data is a table (cache of figure 4) indicative of a correspondence between said detected protocol (parameter key), said IP address (another parameter key) and said QoS (QoS identification), and said quality determining unit (controller) determines said QoS based on said table (col9 lines 55-65 and col10 lines 18-26).

6. Claims 3, 6, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 6154776), in view of Kung et al. (US 6775267), in further view of Gossett Dalton, Jr. et al. (US 6426955), hereinafter referred to as Martin, Kung, and Gossett Dalton Jr.

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Regarding claims 3, the combination of Martin and Kung fails to disclose the specific limitation of claim 3. However, Gossett Dalton, Jr. discloses a gateway (fig 1 item 105) that has a QOS (the higher the quality of the conversation, col15 lines 15-17) that includes a maximum allowable difference (maximum delay a source gateway operator is willing to tolerate, col15 lines 11-12, wherein the gateway operator is a quality determining unit) from a predetermined delay time (the sum of the "other sources of delay" listed in col15 lines 20-23, that constitute delay but are ignored with respect to the maximum delay a source gateway operator is willing to tolerate, as explained in col15 lines 25-28) for transferring said IP datagram (signal between calling party to called party, col15 lines 14-15, wherein the signal is inherently an IP datagram as can be seen from the course of travel in fig 1 item 104 to item 118, through the IP network). It would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the maximum delay time for transferring said IP datagram dictated by a QOS determined by a quality determining unit as disclosed by Gossett Dalton, Jr with the gateway and quality determining unit interaction disclosed by the combination of Martin and Kung to arrive at the invention of claims 3. The motivation to do so would have been to maintain the quality of voice or video of the Data in said IP datagram.

Regarding claims 6 and 22, the combination of Martin and Kung fails to disclose the specific limitation of claims 6. However, Gossett Dalton, Jr. discloses a communication system as noted in the rejection of claim 3, where the QOS includes provision of a VPN. The gateway (fig 1 item105) disclosed by Gossett Dalton, Jr. communicates with a

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called party using the services of service point (fig 1 item 1 12), which includes a routing engine (fig 1 item 1 10)(see col9 lines 36-41, col10 lines 23-34). The routing engine is therefore an integral part of the QoS, as there can be no service much less QoS without a route for sending information from the source gateway to a destination gateway (fig 1 item 1 14a). Gossett Dalton, Jr. further discloses the operation of the routing engine (col10 lines 52-57) and it's using a VPN to communicate with a database.

Therefore said QOS does provide provision of a VPN. It would have been obvious to one ordinarily skilled in the art at the time of the invention to include the provision of the VPN disclosed by Gossett Dalton, Jr. with the communication system disclosed by Martin and Kung to arrive at the invention of claims 6. The motivation to do so would have been to use the VPN to conduct robust transactions with the SMDN (fig 2 item 190) disclosed by Kung used for billing, just as Gossett Dalton, Jr. discloses using it for.

7. Claims 10, 11, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 6154776), in view of Kung et al. (US 6775267), in further view of Jin et al. (US 6917617), hereinafter referred to as Martin, Kung, and Jin.

Regarding claim 10, the combination of Martin and Kung fails to disclose the specific limitation of claims 10. However, Jin discloses that the ToS field of the IP packer header is used to designate the QoS level to the given packet (col3 lines 35-41). It would have thus been obvious to incorporate the use of the ToS to indicate the QoS as disclosed by Jin into the QoS method that allocates QoS to a flow on a network in response to detection of parameters of the flow as disclosed by the combination of Martin and Kung

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to correctly determine the type of service needed for a datagram and the QoS related to that service.

Regarding claim 11, the combination of Martin, Kung and Jin, more specifically Martin discloses that the QoS data is a table (cache of figure 4) indicative of a correspondence between said detected protocol (parameter key) and said QoS (QoS identification), and said quality determining unit (controller) determines said QoS based on said table (col10 lines 18-26). It is noted that Jin discloses that the QoS be further based on the ToS. It would thus be obvious to have the table (cache) be indicative of a correspondence among said detected protocol (parameter key), said ToS and said QoS (correlating to ToS).

Regarding claim 24, the combination of Martin and Kung fails to disclose the specific limitation of claims 24. However, Jin discloses that the ToS field of the IP packet header is used to designate the QoS level to the given packet (col3 lines 35-41). It would have thus been obvious to incorporate the use of the ToS to indicate the QoS as disclosed by Jin into the QoS method that allocates QoS to a flow on a network in response to detection of parameters of the flow as disclosed by the combination of Martin and Kung to correctly determine the type of service needed for a datagram and the QoS related to that service. As discussed with claim 23, Kung further discloses an accounting gateway, which generates paper billing to customers dependent on the

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quality of service used (determines user fees based on a ToS (correlating to QoS) of an IP datagram).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 6154776), in view of Gossett Dalton, Jr. et al. (US 6426955), hereinafter referred to as Martin and Gossett Dalton, Jr.

Regarding claims 16, Martin fails to disclose the specific limitation of claim 16.

However, Gossett Dalton, Jr. discloses a gateway (fig 1 item 105) that has a QOS (the higher the quality of the conversation, col15 lines 15-17) that includes a maximum allowable difference (maximum delay a source gateway operator is willing to tolerate, col15 lines 11-12, wherein the gateway operator is a quality determining unit) from a predetermined delay time (the sum of the "other sources of delay" listed in col15 lines 20-23, that constitute delay but are ignored with respect to the maximum delay a source gateway operator is willing to tolerate, as explained in col15 lines 25-28) for transferring said IP datagram (signal between calling party to called party, col15 lines 14-15, wherein the signal is inherently an IP datagram as can be seen from the course of travel in fig 1 item 104 to item 118, through the IP network).

It would have been obvious to one ordinarily skilled in the art at the time of the invention to combine the maximum delay time for transferring said IP datagram dictated by a QOS determined by a quality determining unit as disclosed by Gossett Dalton, Jr with the gateway and quality determining unit interaction disclosed by Martin to arrive at the

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invention of claims 16. The motivation to do so would have been to maintain the quality of voice or video of the Data in said IP datagram.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 6154776), in view of Jin et al. (US 6917617), hereinafter referred to as Martin and Jin.

Regarding claim 19, Martin fails to disclose the specific limitation of claims 19.

However, Jin discloses that the ToS field of the IP packet header is used to designate the QoS level to the given packet (col3 lines 35-41). It would have thus been obvious to incorporate the use of the ToS to indicate the QoS as disclosed by Jin into the QoS method that allocates QoS to a flow on a network in response to detection of parameters of the flow as disclosed by Martin to correctly determine the type of service needed for a datagram and the QoS related to that service.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N.N.

Nguyen Ngo

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RICKY Q. NGO

SUPERVISORY PATENT EXAMINER